

Introduction of the Varicella (Chickenpox) Vaccine Effectiveness Project in School Settings Through Varicella Outbreak Investigation

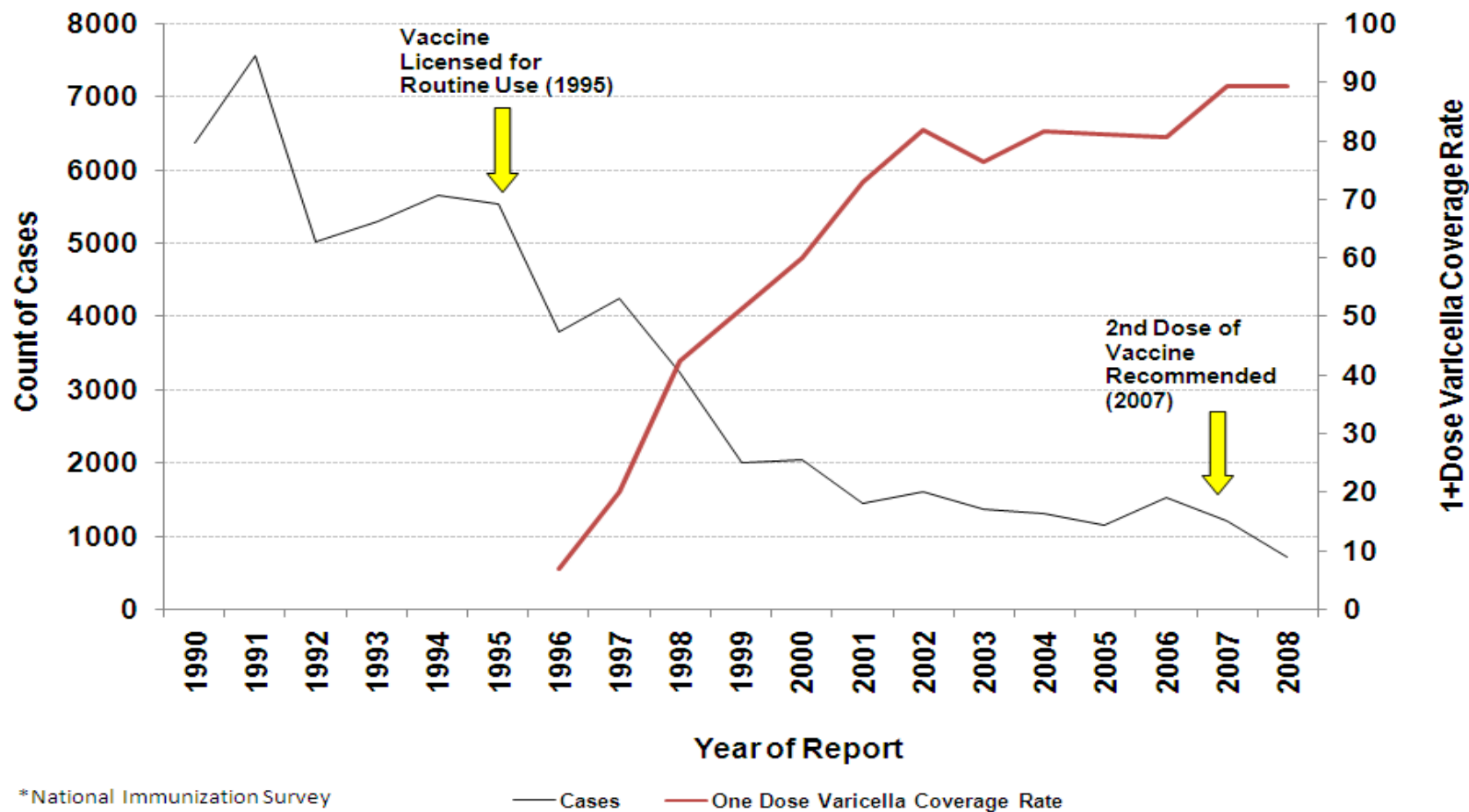
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Office of Epidemiology & Prevention Services (OEPS)
West Virginia Bureau for Public Health

Clinical Description of Varicella (CDC)

- An illness with acute onset of diffuse (generalized) maculo-papulovesicular rash without other apparent cause.

Varicella Cases by Year of Report and 1+ Dose Varicella Coverage by NIS* Year: WV, 1990-2008



Objectives of the Project

- To develop or improve outbreak detection and investigation in schools.
- To evaluate effectiveness of two-dose varicella vaccination in the context of an outbreak.

Varicella Outbreak Case Definition

For the purposes of this project from December 2009
to December 2011,
the case definition has been revised to

*Three (3) or more students with varicella in a school
within 21 days (incubation period)*

Breakthrough Disease

- In vaccinated persons who develop Varicella more than 42 days after vaccination, the rash may be atypical in appearance (maculo-papulovesicular with fewer number of vesicles).

You are a Key Player!

- WV is one of 6 sites awarded by the CDC to conduct this project.
- One-time and short-term opportunity
 - Project date: 12/2009 to 12/2011 during school calendar
- Information may impact CDC recommendations for varicella vaccine guidelines.
- WVDHHR will offer assistance to schools.

Benefits of the Varicella Project to the School Nurses

- Identify and detect more varicella cases and outbreaks
- Implement outbreak control measures in timely manner
- Improve varicella vaccination
- Impact the varicella vaccination recommendation
- Reduce incidence of varicella cases and number of outbreaks in West Virginia

Reporting Requirement

- West Virginia Communicable Disease Rule (64CSR7) requires:
 - Immediate: varicella outbreak to local health department (LHD). You may report outbreaks to the Div. of Infectious Disease Epidemiology (DIDE) at 1-800-423-1271.
 - Weekly: aggregate number of cases of varicella.

West Virginia Immunization Requirements for New School Enters (64CSR95)

- Two (2) doses of varicella (chickenpox) vaccination for new school enterers in 2008-2009.

Varicella Outbreak Investigation Resources

School Nurse Resources are found on our website:

www.wvidep.org

Ease of Reporting

- All public schools (elementary, middle/junior, high)
- Respond to 3-5 min. monthly online varicella survey through school nurse submitted to the listserve on the 30th of each month.
- A survey must be completed for each school.
 - E.g. Amy has 8 schools, she must complete 8 surveys (1 per school).
- A survey can be completed from any computer with internet access.

December Survey Results

- **13** cases of Varicella reported during the month of December 2009
- **No** Varicella Outbreaks reported for December
- A total of **343** public schools out of the **696 (49%)**
- A total of **151** school nurses have completed the survey.
- **Fourteen (14)** Counties reported data for **100%** of their total schools: Boone, Cabell, Clay, Gilmer, Hampshire, Hancock, Lewis, Mercer, Mingo, Ohio, Pleasants, Taylor, Tucker, and Wirt.

December Survey Data Cont.

Percentages Reported by County

Barbour: 11%
Berkeley: 57%
Brooke: 60%
Fayette: 20%
Grant: 20%
Jackson: 50%
Jefferson: 47%
Kanawha: 12%
Logan: 71%
Marion: 21%
Marshall: 77%
Mason: 77%
Mineral: 73%
Monongalia: 71%
Monroe: 50%
Morgan: 75%

Pocahontas: 60%
Preston: 17%
Putnam: 82%
Randolph: 67%
Ritchie: 67%
Roane: 50%
Tyler: 75%
Upshur: 78%
Wayne: 38%
Webster: 17%
Wetzel: 67%
Wood: 85%
Wyoming: 7%

* note counties not shown reported **0%**

January Survey Data

- **19** cases of Varicella reported during the month of January 2010
- **1** Varicella Outbreak reported for January
- A total of **428** public schools out of the **696** (**61%**)
- A total of **176** school nurses have completed the survey.
- **Fifteen(15)** Counties reported data for **100%** of their total schools: Boone, Brooke, Gilmer, Hampshire, Hancock, Lincoln, Logan, Mingo, Monroe, Pleasants, Taylor, Tucker, Tyler, Wayne, and Wirt.

January Survey Data

Barbour: 0%
Berkeley: 46%
Boone: 100%
Braxton : 25%
Brooke : 100%
Cabell: 65%
Calhoun: 0%
Clay: 0%
Doddridge: 0%
Fayette: 73%
Gilmer: 100%
Grant: 20%
Greenbrier: 15%
Hampshire: 100%
Hancock : 100%
Hardy: 0%
Harrison: 4%
Jackson : 42%
Jefferson: 60%

Kanawha : 71%
Lewis : 0%
Lincoln: 100%
Logan: 100%
Marion: 21%
Marshall : 85%
Mason: 80%
McDowell: 0%
Mercer : 71%
Mineral : 82%
Mingo : 100%
Monongalia: 90%
Monroe: 100%
Morgan : 88%
Nicholas : 0%
Ohio: 69%
Pendleton: 0%
Pleasants: 100%
Pocahontas : 60%

Preston : 8%
Putnam : 86%
Raleigh : 0%
Randolph : 71%
Ritchie : 67%
Roane : 50%
Summers: 0%
Taylor : 100%
Tucker : 100%
Tyler : 100%
Upshur: 89%
Wayne : 100%
Webster : 33%
Wetzel : 67%
Wirt : 100%
Wood: 93%
Wyoming : 69%

Questions?

Thank You!